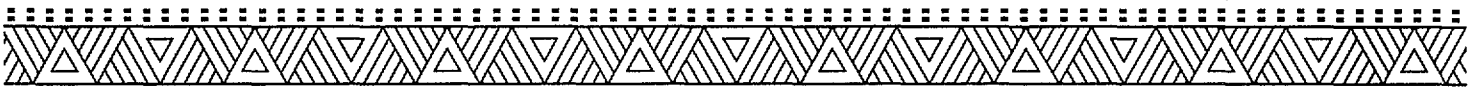




Chapter **1**

INVENTORY



INVENTORY



Airport Master Plan

Chapter 1



The development of an Airport Master Plan for Scottsdale Airport requires the collection and evaluation of various data related to the airport, the community, and the surrounding area. This information includes the following.

- Physical inventories and descriptions of facilities and services provided at the airport.
- A review of historical air traffic activity and air traffic procedures at Scottsdale Airport, and an assessment of local airspace conditions.
- The compilation of background information pertaining to the airport, the City of Scottsdale, and the surrounding region.

- The compilation of population, employment and other socioeconomic statistics which might provide an indication of future growth in the area.
- A comprehensive review of the existing local, regional and state plans and studies to determine their potential influence on the airport.

An accurate and complete inventory is essential to the success of the master plan study. The findings and recommendations made in the master plan are heavily dependant on the information collected during the inventory; therefore, the information collected must be as reliable and up-to-date as possible.

The information summarized in this chapter was obtained through on-site

investigations of the airport and interviews with airport management, representatives of the City of Scottsdale, the City of Phoenix, Maricopa County, Maricopa Association of Governments, the Arizona Department of Transportation, Aeronautics Division, and the Federal Aviation Administration (FAA). Additional information was collected from historical records, available documents and studies concerning local communities and Scottsdale Airport.

AIRPORT SETTING

Scottsdale Airport (S.L.) is located in the northeastern portion of the Phoenix Metropolitan Area, within the City of Scottsdale. The airport consists of approximately 282 acres and is situated between the picturesque McDowell Mountains to the north and Camelback Mountain to the south. The airport is generally bounded by Frank Lloyd Wright Boulevard to the north, Scottsdale Road to the west, Thunderbird Road to the south, and Hayden Road to the east. The airport terminal area is accessed from Scottsdale Road via Butherus Drive to Airport Road. The airport is surrounded by commercial and industrial developments within the Scottsdale Industrial Airpark and Scottsdale Business Center. **Exhibit 1A, Vicinity Map**, illustrates Scottsdale Airport and its environs.

HISTORICAL PERSPECTIVE

The historical development and activity at an airport can provide valuable insight to the airport's genesis. The fol-

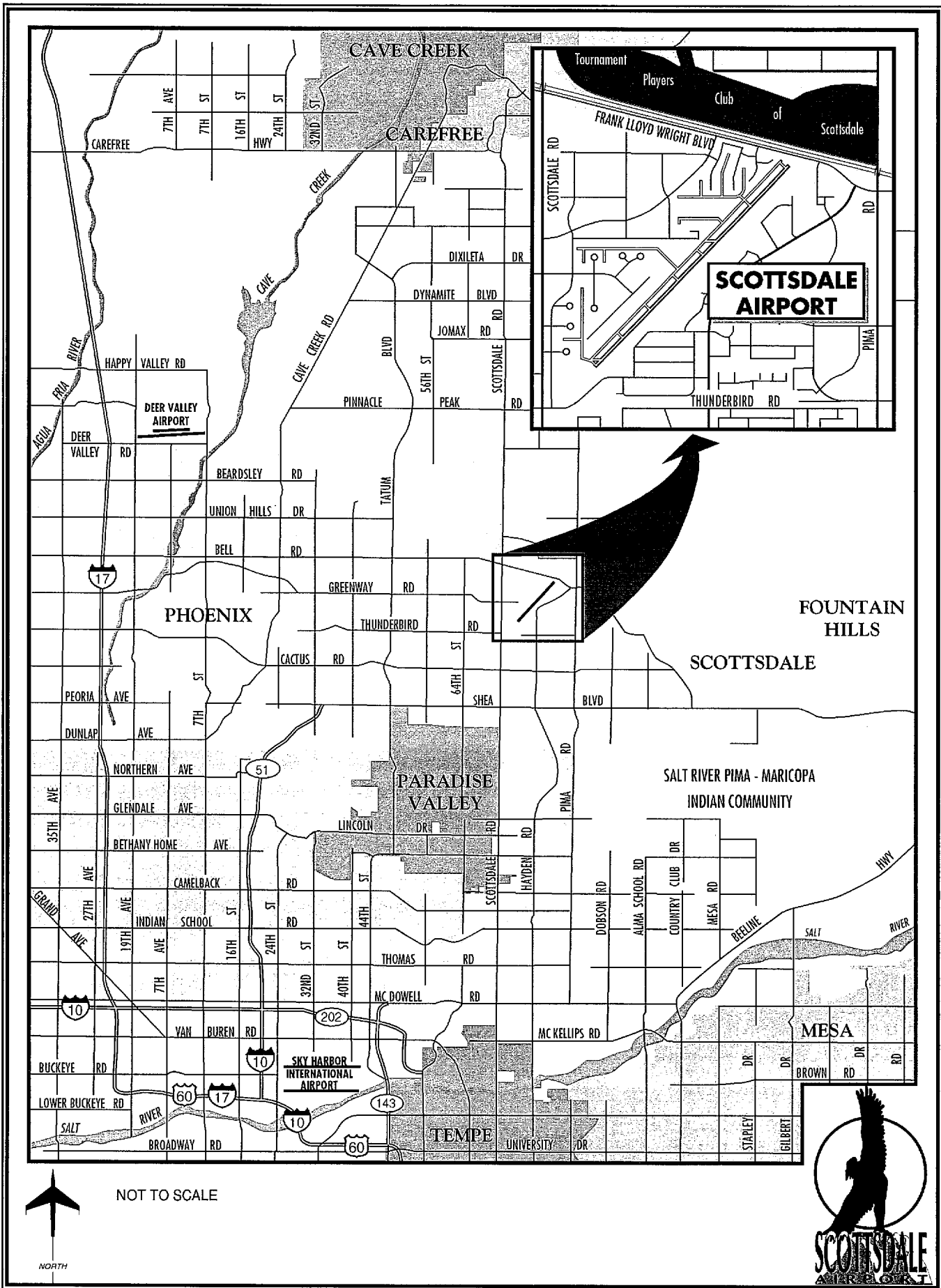
lowing two sections outline the development history and activity associated with Scottsdale Airport.

AIRPORT DEVELOPMENT HISTORY

Scottsdale Airport began as Thunderbird II Airfield in the 1940's and was used by the U.S. Army Air Corps to train pilots during World War II. At any one time, nearly 1,000 pilot cadets were training at the airfield. The airfield had a typical triangular military configuration with hangars and support facilities located on the south side of the airfield.

As the demand for pilots decreased after the war, Thunderbird II Airfield was put up for sale to the public through the Surplus Property Act. The approximately 720 acres was first acquired by the Seventh-Day Adventist in 1953. The Seventh-Day Adventist built a church and the Thunderbird II Academy, a private school, on the property and operated the airport as a private facility, providing pilot training for their missionary program.

In early 1962, a land developer, George Tewksbury of Landel Inc., began negotiating with the Church to acquire approximately 642 acres of the original 720 acres to develop an industrial park. In September of 1964, the City of Scottsdale approved the rezoning of the 642 acres, and signed a deed to acquire an additional 201 acres for the development of a municipal airport. In June 1966, the City acquired 226 acres (an additional 25 acres was needed for clear



zone protection) with funding provided by the FAA. They then constructed a paved 4,800 foot by 75 foot runway in October of the same year. An aircraft parking apron, connecting taxiway and aircraft turn-a-rounds were also constructed. The runway officially opened for operations in June 1967.

In 1969, a parallel taxiway was constructed on the west side of the runway. In addition, taxiway lighting, additional apron, and a windtee were installed. During the same period, the City constructed a 4,800 square foot (SF) general aviation terminal building.

During the 1970's, the City constructed a 20,000 SF conventional hangar, as well as 11 shade hangars and 10 nested T-hangars. An office building, constructed in 1972, was leased to the FAA Flight Standards District Office and the General Aviation District Office. In 1973, the construction began on an FAA Airport Traffic Control Tower (ATCT). The ATCT was officially commissioned for operation in November 1974. This was the same year the first Master Plan was initiated for the airport. Several airfield improvements were completed during the 1970's. These included the installation of Visual Approach Slope Indicators (VASI) and Runway End Identifier Lights (REIL) to both runway ends. Additional apron area was constructed to accommodate 83 tiedowns, as well as a private 20,000 SF conventional hangar, 46 T-hangars, and 40 T-shades.

In the 1980's, the City added 3,619 SF to the terminal building, providing office space and a restaurant facility. A

4,800 foot parallel taxiway was constructed on the east side of the runway, as well as additional apron for 52 tiedowns. Security lighting and the acquisition of 56 acres for a runway extension were also accomplished. The northeast end of the runway was extended, providing a total runway length of 8,251 feet. The parallel taxiway on the west side of the runway was also extended to 8,251 feet. The original 4,800 feet of pavement was overlaid during this same period. Also during the 1980's, two larger conventional hangars and additional office space were constructed. In 1989, a new ATCT was constructed on the east side of the runway, near midfield. This new location, along with a taller tower, enhanced the ability for ATCT staff to see each runway end and aircraft within the traffic pattern.

During the 1990's, the City completed apron rehabilitation projects, as well as numerous drainage and erosion control projects. Other projects, anticipated to be completed in the near future include the expansion and remodeling of the terminal building and improvements to the airport access road and automobile parking area.

HISTORICAL AIRPORT ACTIVITY

All air traffic statistic at Scottsdale Airport are recorded by the airport management staff from information provided by the FAA ATCT staff. ATCT personnel at the airport collect and report aircraft operations (takeoffs and landings). Annual operations reached a peak of 265,819 in 1990 and have de-

creased over the last three years with a total of 184,512 recorded in 1993. It is estimated that total operations for 1994 will be approximately 169,000. **Table 1A, Historical Airport Activity Summary**, presents a summary of the total annual operation figures relevant to Scottsdale Airport since 1984.

The airport management staff collects and records data concerning both based aircraft and passenger enplanements at

the airport. A based aircraft can generally be defined as an aircraft that the owner stores at a specific airport, in other words, "based" at that airport. A commercial passenger enplanement is defined as a passenger that boards an aircraft for departure from the airport. The historical based aircraft and enplanement statistics from 1984 through 1994 are also included in **Table 1A**.

TABLE 1A
Historical Airport Activity Summary
Scottsdale Airport

Year	Annual Operations	Based Aircraft	Annual Passenger Enplanements
1984	156,612	447	N/A
1985	170,559	462	N/A
1986	189,789	432	1,900
1987	188,043	409	4,102
1988	192,541	375	5,516
1989	229,816	414	8,757
1990	265,819	410	11,932
1991	234,597	405	9,075
1992	197,577	403	10,227
1993	184,512	420	7,856
1994	166,738	393	6,900 ¹

Note: ¹ Estimated

Source: FAA ATCT Staff and Scottsdale Airport Administration

EXISTING AIRPORT FACILITIES

An airport is generally divided into three distinct types of facilities: airside, landside and support. The airside facilities consist of the runway and taxiway

system, as well as lighting aids and navigational aids. The landside facilities consists of terminal buildings, hangars, tiedowns, and auto parking, etc. Airport support facilities include those for utility delivery, aircraft rescue and firefighting (ARFF) and fuel storage

facilities. Each of these three facility areas are further described in the following sections.

AIRSIDE FACILITIES

The airside facilities at Scottsdale Airport include the runway, taxiways, and navigational and visual aids. **Exhibit 1B, Existing Facilities**, identifies the locations of the airside facilities.

Runway 3-21

Scottsdale Airport, situated at an elevation of 1,508 feet mean sea level (MSL), consists of a single runway. Runway 3-

21 is oriented northeast-southwest and is 8,251 feet in length and 75 feet in width. The runway is constructed of asphalt and has an aircraft operating weight limitation (City Ordinance Sec. 5-89) of 45,000 pounds single-wheel loading (SWL) and 75,000 pound dual-wheel loading (DWL). The runway has a runway gradient of 0.81 percent sloping upward to the northeast. Runway 3 has a displaced threshold 730 feet from the southwest end of the runway. In order to prevent erosion from jet blast or propwash, each runway end is equipped with a 150 foot wide by 200 foot long blastpad. **Table 1B, Runway Data**, presents a summary of facility data for Runway 3-21 at Scottsdale Airport.

TABLE 1B		
Runway Data		
Scottsdale Airport		
	RUNWAY	
	3	21
Length (ft)	8,251	
Width (ft)	75	
Surface Material	Asphalt	
Pavement Strength		
Single Wheel Loading (lbs)	45,000	
Dual Wheel Loading (lbs)	75,000	
Navigational/Visual Aids		
Visual Approach Slope Indicator (VASI)	VASI-2	VASI-2
Runway End Identifier Lights (REIL)	Yes	Yes
Nondirectional Radio Beacon (NDB)	Circling Approach (Visual)	
Very High Frequency Omnidirectional Range (VOR)	Circling Approach (Visual)	
Approach Slope (horizontal:vertical)	20:1	
Lighting	Medium Intensity Runway Lighting	
Markings	Visual	
Source: DOC/NOAA Airport/Facility Directory, dated February 29, 1996		

Taxiways/Taxilanes

Taxiway/taxilane systems are provided to facilitate aircraft movement between the runway system and the landside facilities. The existing taxiway/taxilane system at Scottsdale Airport consists of one full-length parallel taxiway (Taxiway Alpha), one partial-parallel taxiway (Taxiways Bravo), one partial-parallel taxilane (Taxilane Charlie) and numerous connecting and acute-angle exit taxiways. These taxiways/taxilanes are 40 feet in width and are constructed of asphalt. In addition, Greenway and Industrial Taxilanes serve the adjacent industrial airport.

The pavement strengths of Taxiway Alpha and associated exit taxiways are 45,000 pounds SWL and 75,000 pounds DWL, while Taxiway Bravo and Charlie, Greenway, and Industrial Taxilanes are rated as 30,000 pounds SWL.

Lighting and Markings

A variety of lighting and marking aids are available at Scottsdale Airport to facilitate airport identification, approaches and departures. These systems are categorized by function and are further described in the following sections.

Identification Lighting

The location and presence of an airport is universally indicated by an airport beacon. A civilian airport beacon is equipped with an optical system that projects two beams of light, one green

and one white. At Scottsdale Airport, the airport beacon is located on the west side of the airport, north of the FAA Flight Standards District Office (FSDO).

The airport is also equipped with three windcones on the east side of the runway, one lighted windcone incorporated with the segmented circle, and two non-lighted windcones near each runway end.

Runway and Taxiway Lighting

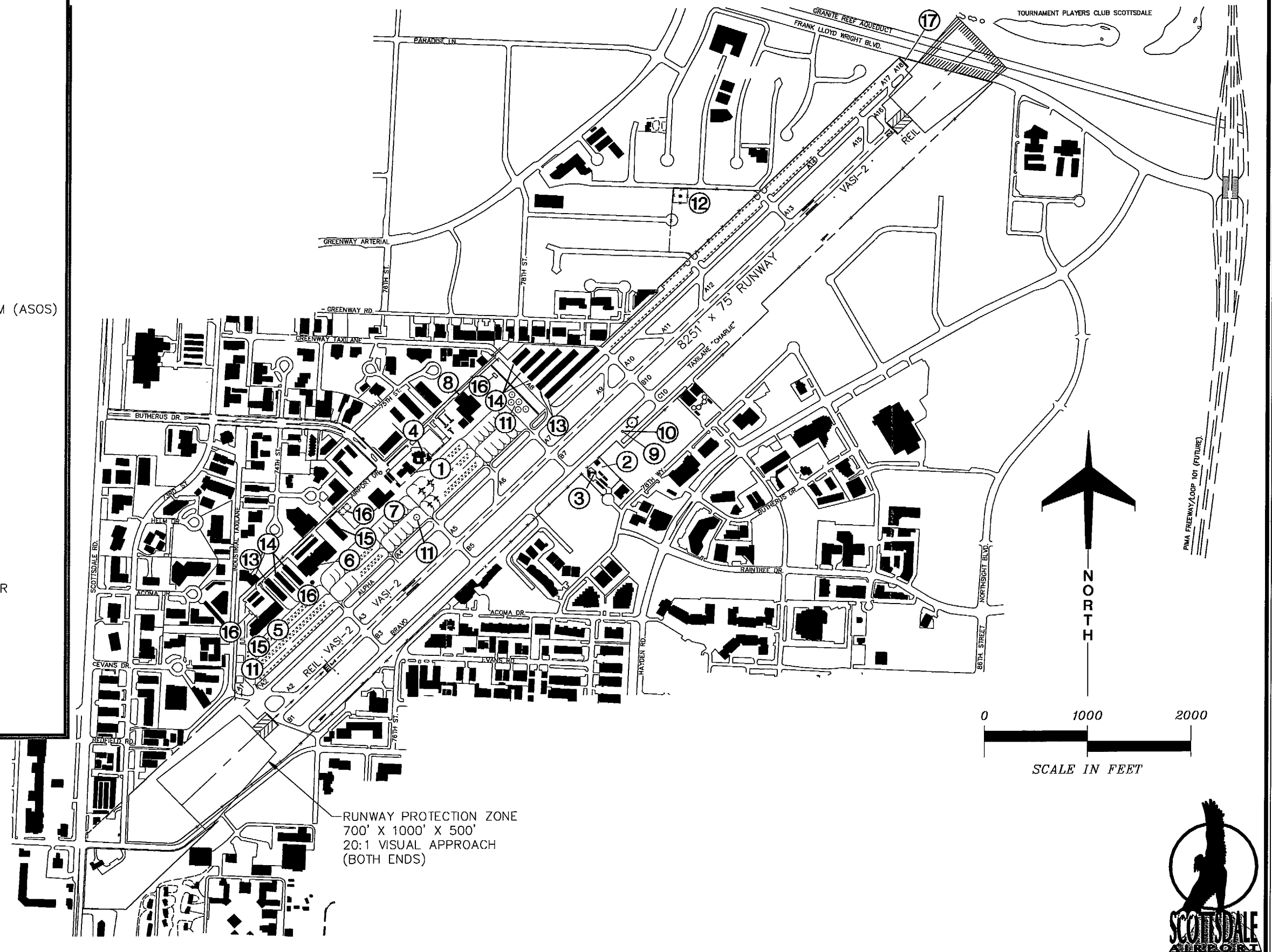
Runway 3-21 is equipped with Medium Intensity Runway Lights (MIRL) which outline the runway with white lights. In addition, threshold lighting is provided to identify the displaced threshold of Runway 3 and the end of Runway 21. Taxiway Alpha and most of the associated connecting taxiways are equipped with Medium Intensity Taxiway Lights (MITL) which outline the taxiways with blue lights. Taxiway exit A6 and the taxiway extension and stubs north of A16 are not equipped with MITL; however, these taxiways are equipped with blue/yellow taxiway reflectors. Taxiway Bravo and associated connecting taxiways are also equipped with blue/yellow taxiway reflectors.

Approach Lighting

Runway 3-21 is equipped with two-box Visual Approach Slope Indicator (VASI-2) lights on the left side of the approach end of each runway. These systems consist of two-color, high-intensity, focused lights at predetermined angles

LEGEND:

- ① ADMINISTRATION/TERMINAL BUILDING
- ② AIRPORT RESCUE AND FIREFIGHTING (ARFF)
- ③ AIRPORT TRAFFIC CONTROL TOWER (ATCT)
- ④ FAA FLIGHT STANDARDS DISTRICT OFFICE
- ⑤ AIR COMMERCE CENTER
- ⑥ CORPORATE JETS AVIATION CENTER
- ⑦ CORPORATE JETS
- ⑧ DESERT AVIATION
- ⑨ WEATHER INSTRUMENTS
- ⑩ AUTOMATED SURFACE OBSERVATION SYSTEM (ASOS)
- ⑪ HELICOPTER PARKING
- ⑫ NON-DIRECTIONAL RADIO BEACON (NDB)
- ⑬ T-HANGARS
- ⑭ T-SHADES
- ⑮ EXECUTIVE HANGARS
- ⑯ UNDERGROUND FUEL STORAGE FACILITY
- ⑰ BLAST FENCE
- * AIRPORT ROTATING BEACON
- ⊙ SEGMENTED CIRCLE/LIGHTED WIND INDICATOR
- ▨ AIRCRAFT PARKING (TIEDOWNS)
- ↗ WIND INDICATOR
- EXISTING BUILDINGS
- AIRPORT PROPERTY LINE



to provide visual descent guidance information to the pilot during the final approach to the runway. According to the December 1994, Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) Airport/Facility Directory, each VASI at Scottsdale Airport is set at a 4.0 degree glide angle.

Both runway thresholds are also equipped with Runway End Identifier Lights (REILs). REILs are high-intensity, white strobe lights that provide the pilot with positive identification of the runway threshold. These lights are particularly useful during periods of poor visibility conditions or at night.

Pavement Markings

Pavement markings are used on runway and taxiway surfaces to identify a specific runway, runway threshold, centerline, holdline, or an edge line. Runways are marked with white markings in accordance with the type of approach available (visual, nonprecision, or precision) to each runway end. Although the Scottsdale Airport has nonprecision instrument approach procedures, these procedures are only to the airport and are not to a specific runway end; therefore, each runway end is marked with visual approach markings. The markings include runway designation, centerline, edge, displaced threshold, and aiming point. In addition, each runway blastpad is marked with yellow chevrons.

The taxiway/taxilane system at Scottsdale Airport is marked with yellow

centerline markings. The words "Scottsdale Elev. 1509" is marked in white on Taxiway Bravo near midfield. This marking is common at metropolitan airports, allowing pilots to easily identify the specific airport and elevation.

Navigational Aids

Navigational aids (navaids) provide direction, range and/or position information to pilots. Navaids are usually classified as either *enroute* or *terminal*. The enroute navaids provide point-to-point navigation, while the terminal navaids provide approach and landing guidance. Some navaids serve as both enroute and terminal navaids.

Enroute Navaids

Enroute navaids are comprised of two basic types of equipment, the VOR (very high frequency omnidirectional range) and the VORTAC (VOR/tactical air navigation). The VOR provides bearing (direction) information to pilots while a VORTAC produces both bearing and distance information. The VOR is commonly linked with a DME (distance measuring equipment) to provide nearly identical service as the VORTAC. The VOR transmits radio signals every degree to provide 360 individual courses from the transmitting facility. Both DME and TACAN (tactical air navigational system) provide slant-range to the station in nautical miles (NM). The VOR, a VHF (very high frequency) facility and the TACAN, a UHF (ultra high frequency) facility, are limited to

line-of-sight transmissions; their ranges are affected by the altitude of the aircraft.

There are two enroute navaids generally associated with the Scottsdale Airport. The Phoenix VORTAC, located 11 NM south-southwest, at Phoenix Sky Harbor International Airport, and the Willie VORTAC located 21 NM south-east, at Williams Gateway Airport. **Table 1C, Navaid Data**, describes the enroute navaids in the Scottsdale Airport area.

Terminal Area Navaids

Terminal area navaids are those located at or in proximity to the airport and serve to assist the pilot in flying an appropriate direction or glidepath to the

runway end. The only terminal area navaid at Scottsdale Airport is a Nondirectional Radio Beacon (NDB). A NDB is a low frequency radio beacon that pilots can use to determine their bearing from the facility. Scottsdale NDB, operating on the frequency of 224 kHz, transmits a continuous three-letter Morse Code identifier "S.L.". This terminal navaid provides pilots circling approach capabilities to Scottsdale Airport. The NDB is located on the west side of the runway approximately 920 feet west and 1,900 feet south of the threshold of Runway 21. The Phoenix VORTAC and the Willie VORTAC are also used to provide circling approaches to Scottsdale Airport. These approaches will be describe later in this chapter. **Table 1C**, summarizes the terminal area navaids at Scottsdale Airport.

TABLE 1C Navaid Data				
Name	Identifier	Frequency	TACAN Channel	Location
Phoenix VORTAC	PXR	115.6	103	11 NM to the SSW
Willie VORTAC	IWA	113.3	80	21 NM to the SE
Scottsdale NDB	S.L.	224	N/A	On-Airport
Notes: N/A - Not Applicable, NM - nautical mile, SSW - south-southwest, SE - southeast Source: DOC/NOAA Airport/Facility Directory, dated December 8, 1994.				

LANDSIDE FACILITIES

In addition to the airside facilities described, landside facilities are essential to the daily operation of Scottsdale Airport. Landside facilities primarily

consist of those facilities required to accommodate aircraft, pilots and passengers while they are at the airport. Landside facilities typically consist of terminal buildings, FBO facilities, aircraft parking apron, hangars, and auto parking.

Terminal Building Area

The terminal building area at Scottsdale Airport is located on the west side of the runway. The existing terminal building was constructed in 1969 and expanded in 1980. The total size of the terminal is approximately 8,419 SF. At the present time, two aircraft charter services, a flight school, a pilot shop, a restaurant, a flight planning area, and the airport administrative offices are located in the building. Approximately 47 auto spaces are available in front of the terminal building.

The FAA FSDO building, approximately 6,000 SF, is located just north of the terminal building. This facility consist of office space for the FAA employees. Adjacent to the FSDO building is an additional 112 auto spaces. **Exhibit 1C, Existing Terminal Area**, illustrates the layout of the existing terminal area.

Fixed Based Operators (FBOs)

There are two Fixed Based Operators (FBOs), businesses providing a wide variety of pilot/aircraft services, as well as numerous other businesses providing specialty aviation services at Scottsdale Airport. A brief description of the two FBOs is provided in the following sections.

Corporate Jets, Inc.

Corporate Jets, Inc., with 68 employees, provides extensive aircraft service at

Scottsdale Airport, selling fuel and oil, conducting aircraft maintenance (including major airframe, powerplant, and avionics repair) and also providing both based and transient aircraft tiedown and executive hangar space.

Corporate Jets facilities consists of an 8,000 SF office building with an attached 9,000 SF conventional hangar. This hangar is generally used for aircraft maintenance. Corporate Jets is also an agent for Hertz Rent-a-Car, providing a wide-range of rental car services. The automobile parking area consists of a total of 69 spaces (57 visitor spaces and 12 rental car spaces).

Desert Aviation, Inc.

Desert Aviation, formally Aero Services, has 30 employees and sells fuel and oil and provides major airframe, powerplant and avionics maintenance. The Desert Aviation facility consists of 13,149 SF of office space, a 25,860 SF conventional hangar and a 3,700 SF shaded aircraft parking canopy. The conventional hangar is used to store aircraft, as well as for aircraft maintenance activity. The automobile parking area consists of 79 spaces.

Currently, five businesses sublease office space within the Desert Aviation facility. These businesses include Budget Rent-a-Car, a flight school, two aircraft charter companies, and an aircraft sales business.

Apron and Aircraft Parking Areas

The aircraft parking aprons are located along the length of the west side of the runway. These areas are accessed via Taxiway Alpha. The apron areas are generally categorized into six areas: Delta Ramp, Corporate Jets Aviation Center (CJAC) Ramp, Corporate Jets Ramp, Terminal Ramp, Desert Aviation Ramp, and Kilo Ramp. Each ramp area is described in the following sections.

Delta Ramp

Delta Ramp is located on the south end of the apron. This apron area is generally used by locally based aircraft and is accessed from Taxiway Alpha via the A2 and A4 intersections. The apron is located directly east of the Air Commerce Center facility and apron consists of three rows of single engine aircraft tiedowns and one row of twin engine aircraft tiedowns. There are 89 single-engine aircraft tiedowns and seven twin-engine tiedowns available.

Corporate Jets Aviation Center Ramp

The Corporate Jets Aviation Center (CJAC) Ramp is located north of the Delta Ramp and can be accessed by the intersections of A3 and A4 from Taxiway Alpha. This apron is configured with 26 aircraft tiedowns and five jet parking spaces. The tiedowns are generally used by transient aircraft.

Corporate Jets Ramp

The Corporate Jets Ramp is located north of the CJAC Ramp between the intersections of A4 and A5. There are 10 jet parking spaces and a helipad on this apron. There are no small aircraft tiedowns in this area.

Terminal Ramp

The Terminal Ramp is located between the A5 and A6 intersections. This apron serves both based aircraft and transient aircraft. There are 42 single-engine tiedowns, 6 twin-engine tiedowns, and two aircraft gate positions. Twenty of the 42 single-engine tiedowns are used for transient aircraft parking with the remaining for based aircraft. The aircraft gate positions are generally used by the charter company in the terminal building to accommodate DeHaviland Twin Otters aircraft.

Desert Aviation Ramp

The Desert Aviation Ramp is located at the north end of the terminal area, between the A5 and A6 intersections. There are 14 small aircraft tiedowns available north of the Desert Aviation building. The apron area, located to the east of the building, is configured with 11 jet parking spaces. Immediately north of the jet parking area are four helicopter parking spaces.



Kilo Ramp

Kilo Ramp is located at the northwest portion of the airport. Access to this apron area is provided by A10, A12, A13, A14, A15, A17, and A18. There are 128 aircraft tiedowns in this area, which is generally used for based aircraft parking. At the north end of the Kilo Ramp is an aircraft maintenance runup area which is equipped with a blast fence. The maintenance runup area is generally used by the FBO's for maintenance runups of jets and larger twin engine aircraft.

Hangars and Other Buildings

There are basically four other hangar/office building areas located at Scottsdale Airport: the Air Commerce Center, Corporate Jets Aviation Center (CJAC), the City Hangars/Shades, and the Greenway Hangars/Shades. Each of these areas are described in the following sections.

Air Commerce Center

The Air Commerce Center includes 27,400 SF of office space and eight 2,700 SF executive hangars. The office space is host to a number of aviation related businesses, including an aircraft charter service, three flight schools, an aviation insurance company, and an automobile traffic reporting service. The hangars are used either to store aircraft or as maintenance hangars for the charter companies and flight

schools. This facility has 204 auto parking spaces (56 covered tenant spaces, 148 visitor spaces and a separate motorcycle parking area).

Corporate Jets Aviation Center

Corporate Jets Aviation Center (CJAC), operated by Corporate Jets, Inc., consists of 18,000 SF office complex with two attached conventional hangars, totaling 30,000 SF. These conventional hangars are generally used to store both based and transient aircraft.

Currently, twenty aviation related businesses sublease within the CJAC facility. These businesses include flight schools, aircraft insurance companies and aircraft sales companies. Numerous non-aviation related business are also located within this building. This complex is equipped with 120 auto parking spaces, 58 of which are covered spaces for building tenants and 62 are uncovered visitor parking spaces.

City Hangars/Shades

Located between the Air Commerce Center and the CJAC building are 10 T-hangars and 23 T-shades owned and operated by the City of Scottsdale. These facilities are accessed via A3 between the Delta Ramp and the CJAC Ramp. They accommodate based single-engine aircraft. There are no automobile parking spaces designated in this area, therefore, most aircraft owners park their vehicles within the hangar or shade space.

Greenway Hangar Complex

The Greenway Hangar/Shade area consists of 52 T-hangars and 30 T-shades which are privately owned and operated. Each hangar/shade is sub-leased to an aircraft owner for storage of an aircraft. This area is accessed via Greenway Taxilane (A8). There are no automobile parking spaces designated in this area. As a result, most aircraft owners park their vehicles within the hangar or shade space.

Automobile Parking

Parking spaces in the terminal area are generally provided by each facility as previously discussed. In addition to the auto parking areas at each facility, the airport has a long-term parking area, located between Desert Aviation and the Greenway Hangar/Shade area. This parking area consists of 104 spaces and is accessed from Butherus Road via Airport Drive. Aircraft owners renting a tiedown space on the airport typically park their vehicles in the aircraft tiedown space.

AIRPORT SUPPORT FACILITIES

Airport support facilities are those that are not classified as either airside or landside, but do play an important role in the function of Scottsdale Airport. Maintenance, Airport Rescue and Firefighting (ARFF) facilities, fuel storage facilities, Automated Surface Ob-

serving System (ASOS), available utilities, and the Scottsdale Industrial Airpark are support facilities which will be discussed in the following sections.

Maintenance

Scottsdale Airport maintenance equipment is stored in approximately 2,500 SF of the City Hangar building. The City vehicle storage area (Corp Yard) is located approximately eight miles from the airport. This facility houses a number of the City vehicles that the Airport staff uses. Currently, airport equipment consists of one front-loader (bulldozer), two Dodge pickup trucks (Airport Maintenance), one Ford Explorer (Airport Operations), two runway/pavement sweepers, and a variety of small hand tools and equipment.

Aircraft Rescue and Firefighting

Adjacent to the ATCT is the Aircraft Rescue and Firefighting (ARFF) facility which houses the emergency fire suppression equipment. The Scottsdale Airport ARFF facility consists of a trailer and covered parking area. The ARFF support is provided by Rural Metro (a contract fire fighting company for the City of Scottsdale). The facility consists of two vehicles including a 1991 Ford one-ton chemical truck with 100 pounds of dry chemical and 50 gallons of aqueous film forming foam (AFFF) and a 1981 Ford foam truck with 50 gallons of AFFF and 750 gallons of water.

Fuel Storage Facilities

Fuel storage at Scottsdale Airport consists of a total of 47,000 gallons of Av-Gas and 82,000 gallons of Jet A. Each FBO on the airport operates below-ground storage facilities and distributes the fuel to aircraft through the use of fuel trucks. In addition, 20,000 gallons below-ground of the Jet A fuel is available at the Air Commerce Center for private use. **Exhibit 1C** identifies the location of each fuel storage facility.

Automated Surface Observing System

The Scottsdale Airport is equipped with an Automated Surface Observing System (ASOS). The ASOS provides automated aviation weather observations 24 hours-a-day. The system updates weather observations every minute, continuously reporting significant weather changes as they occur. The ASOS system reports sky observations, cloud ceiling, visibility, temperature, dew point, wind direction and speed, altimeter setting, and density altitude.

Utilities

The availability of utilities serving Scottsdale Airport is an important factor in determining the development potential of the airport property. Of primary interest in the area of the airport is the availability of water, sanitary sewer, electricity, and storm sewer. Also of concern is the disposal of a solid waste and its proximity to the runway; these facilities have the propensity to

attract birds which create a hazard for aircraft. Scottsdale Airport is served by the following utilities.

- ◆ Water - Potable water to the airport is provided by the City of Scottsdale.
- ◆ Sanitary Sewer - Sanitary sewer facilities are provided through the City of Scottsdale sewage facility.
- ◆ Electricity - Arizona Public Service provides the electrical power to the airport.
- ◆ Storm Sewer - The development at the airport has included a retention basin at the approach end of Runway 3.
- ◆ Solid Waste Disposal - The City of Scottsdale provides all solid waste pickup and disposal within the City limits, the solid waste facility is located approximately 9 NM southeast of the airport.

Scottsdale Industrial Airpark

The adjacent property on the east and west side of the airport is known as the Scottsdale Industrial Airpark. This land, originally purchased from the Seventh-Day Adventist Church by Landel, Inc., was sold to developers for the purpose of constructing a commercial/industrial airpark next to the airport property. The airpark provides office/hangar buildings with taxilane access to the runway/taxiway system. Currently, six gated access points are available from the airpark area to the airport, including Greenway and Indus-

trial Taxilanes. Users of the airport from the airpark pay an access fee for this privilege. There are approximately 70 aircraft stored in hangars in the airpark area, however, there are many other hangars used for warehousing rather than aircraft storage.

AIRSPACE AND AIR TRAFFIC CONTROL

An analysis of the airspace structure in the vicinity of Scottsdale Airport is necessary to determine the operational interaction among various types of airspace and airspace users. Flights in and out of Scottsdale Airport are currently conducted in Visual Flight Rules (VFR) and Instrument Flight Rules (IFR). VFR conditions exist when flight visibility is three miles or greater and the cloud ceiling is at least 1,000 feet above the surface. IFR conditions exist when visibility or cloud levels are reduced below VFR conditions. Currently, Scottsdale Airport has an ATCT providing all necessary communications and navigational assistance to pilots operating in and out of the airport. The terminal and enroute ATC services are provided by Phoenix Terminal Radar Approach Control (TRACON) and the Albuquerque Air Route Traffic Control Center (ARTCC) facilities.

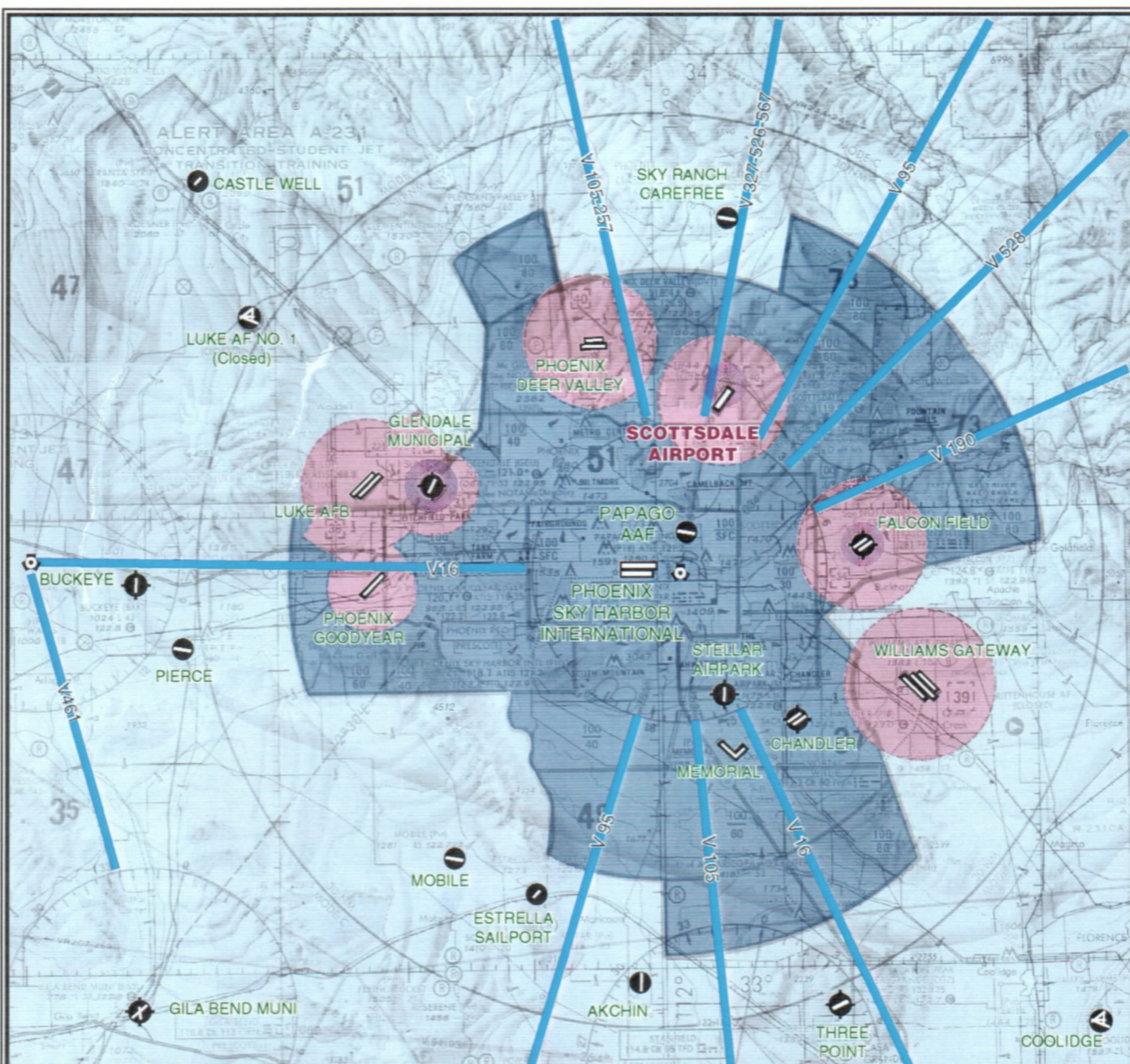
As depicted in **Exhibit 1D, Airspace**, other airports (both private and public) are located within the region surrounding Scottsdale Airport. The airports and airspace that are associated with the Scottsdale Airport area are discussed in the following sections.

AREA AIRPORTS

There are five public airports, seven private, and one military airport within a 20 NM range of Scottsdale Airport. The following five airports are public use airports: **Mesa Falcon Field (FFZ)**, 13 NM southeast, with both a 5,100 foot and 3,800 foot paved runway; **Stellar Airpark (P19)**, 19 NM south, with a 4,000 foot paved runway; **Phoenix Sky Harbor International Airport (PHX)**, 12 NM south-southwest, with an 11,001 foot paved runway and a 10,300 foot paved runway; **Glendale Municipal Airport (GEU)**, 19 NM west-southwest, with a 5,300 foot paved runway; and **Phoenix Deer Valley Airport (DVT)**, 9 NM west-northwest, with an 8,200 foot and a 4,500 foot paved runway.

The following seven airports are private use airports in the area: **Sky Ranch Carefree**, 11 NM north, with a 4,000 foot paved runway; **Sycamore Creek**, 15 NM east, with a 3,000 foot unpaved runway; **Brenteson**, 17 NM south, with a 1,900 foot unpaved runway; **Hangar Haciendas**, 18 NM southwest, with a 1,700 foot paved runway; **Paradise**, 18 NM southwest, with a 2,400 foot unpaved runway; **McGill**, 14 NM west-northwest, an ultralight field; and **Pleasant Valley**, 19 NM northwest, with a 4,000 foot unpaved runway.

The only military airport within 20 NM of Scottsdale Airport is the **Papago AAF (NG)**, 9 NM south-southwest, with a 3,500 foot paved runway. **Exhibit 1D**, illustrates the location of other area airports.



Source: Phoenix Sectional Aeronautical Chart

LEGEND			
	Class B Airspace		VORTAC
	Class D Airspace		Victor Airway
	Airports		Non-Directional Beacon



NORTH

Not To Scale



AIRSPACE STRUCTURE

Since the inception of aviation, nations have set up procedures within their territorial boundaries to regulate the use of airspace. Until recently, the system used to regulate airspace in the United States was different than those found in other countries. As of September 16, 1993, all airspace within the United States was reclassified to be consistent with international standards. Class A, B, C, D, E, and G are now used to describe the various airspace areas found in the U.S. The basic premise of the use of airspace, however, has remained the same, and airspace is still classified as either "controlled" or "uncontrolled." The new airspace classifications are illustrated on **Exhibit 1E, Airspace Classification**. The following sections describe those airspace classification associated with Scottsdale Airport.

Phoenix Class B Airspace

The Phoenix Class B Airspace consists of controlled airspace, extending from the surface or higher to specific altitudes, within which all aircraft are subject to the operating rules and pilot/equipment requirements specified in F.A.R. Part 91. This airspace requires specific IFR arrival and departure procedures as well as operative avionics equipment for all aircraft. While operating within Class B Airspace, pilots are provided radar separation and sequencing from the Phoenix Terminal Radar Approach Control (TRACON) facility, and, if time permits, are provided VFR traffic advisories.

The Phoenix Class B Airspace consists of defined areas which are located at specific distances from the Phoenix Sky Harbor International Airport localizer antenna. The Phoenix VORTAC is utilized to define a number of the airspace sectors, as well as surface topography, including mountains, roads, etc. Specific "floor" and "ceiling" altitudes are also associated with each airspace sector. Each of the airspace sectors provides controlled airspace for the associated airport, arrival route, departure route, or terrain clearance.

Scottsdale Airport is located under a sector of the Phoenix Class B Airspace. The airspace sector which encompasses Scottsdale Airport has a floor of 6,000 feet MSL and a ceiling of 10,000 feet MSL. Approximately one NM south of Scottsdale Airport (at Cactus Road), another Phoenix Class B airspace sector has a floor of 4,000 feet MSL and a ceiling of 10,000 feet MSL.

Scottsdale Airport Class D Airspace

Class D Airspace is associated with airports with operating control towers. The Scottsdale Airport Class D Airspace includes that airspace within a horizontal radius of five statute mile of the airport, extending from the surface up to 2,500 feet above airport elevation (4,000 feet MSL). The operating aircraft in this airspace are required to contact the ATCT prior to entering. During the times that the ATCT is closed, this airspace reverts to Class G Airspace (uncontrolled airspace).

Scottsdale Airport Traffic Control Tower

The ATCT at Scottsdale Airport is located on the east side of the runway at approximately midfield. The ATCT operates daily from 6:00 am to 9:00 pm local time, controlling aircraft movement within the Class D Airspace and on the runway and taxiway system. The IFR arrivals and departures from Scottsdale Airport are coordinated with Phoenix TRACON.

In addition, during ATCT operating hours, the ATCT staff acts as a Limited Aviation Weather Reporting Station (LAWRS), providing information on cloud height, weather, obstruction to vision, surface winds, and altimeter setting. During the times when the ATCT is closed, some airport information is provided on the Automatic Terminal Information Service (ATIS). This information is broadcast repeatedly over the common traffic advisory frequency.

AIRWAYS

Aircraft operating on an IFR flight plan, whether in actual instrument meteorological conditions or not, are governed by IFR procedures. Most air carriers, business jets and military operations are conducted under IFR procedures. Published procedures for instrument approaches and departures outline the required flight paths and altitudes.

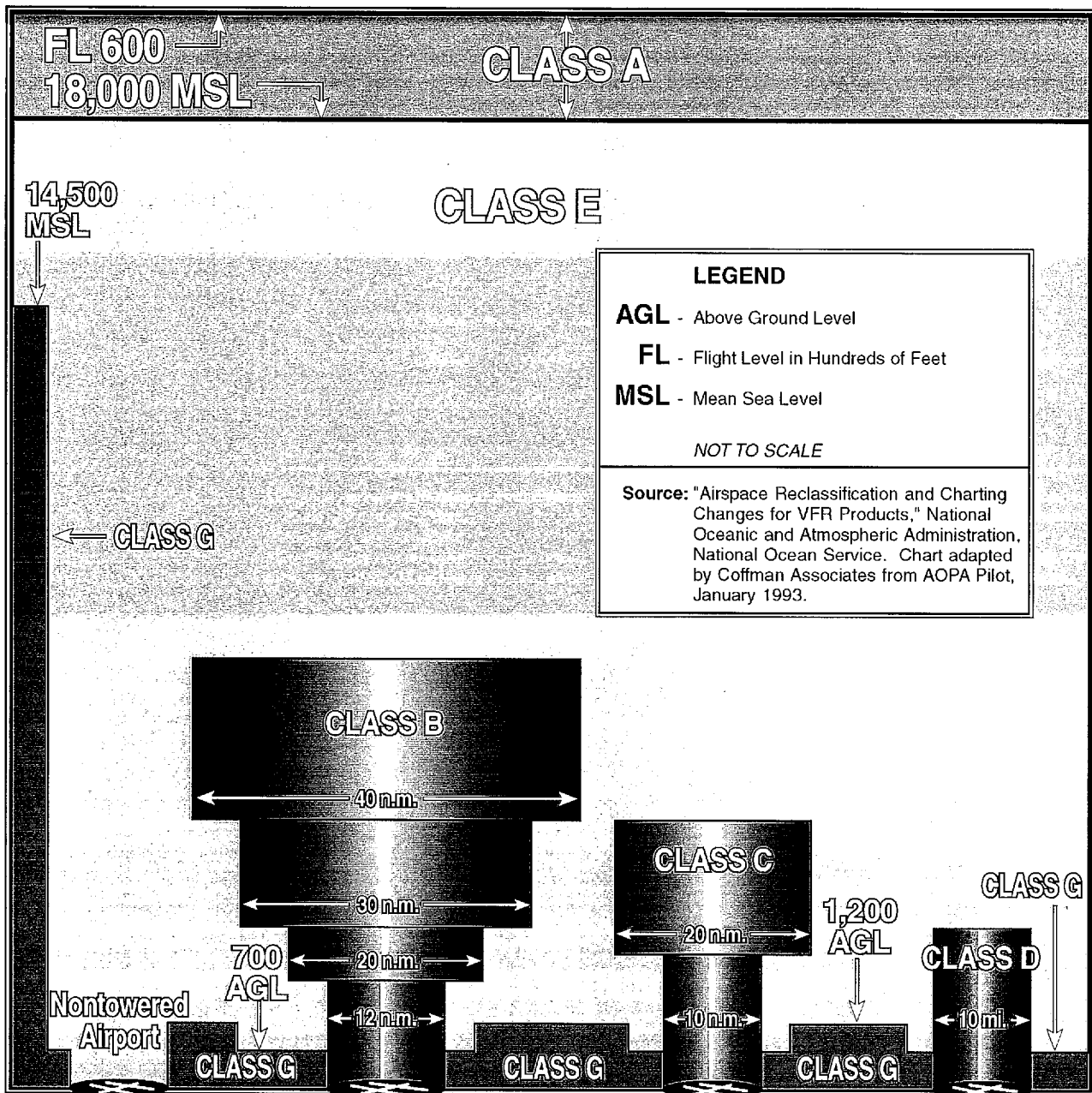
Aircraft normally travel between airports via electronic airways. These

airways are marked on aeronautical charts, connecting enroute nav aids that assist pilots in controlling their aircraft along these specific routes. There are two types of airway systems: the Low Altitude System (Victor Airways); and the High Altitude System (Jet Routes). The Victor Airway system begins at 1,200 feet AGL and extends upward to 18,000 feet MSL. The Jet Route system, layered above the Victor Airways, begins at 18,000 feet MSL and extends upward to 45,000 feet MSL.

Four Victor Airways, V528, V95, V327-562-567, and V105-257, are located in the Scottsdale Airport area. Victor 528, a northeast-southwest airway, is located approximately 6 NM east of the airport. This airway is used to navigate between the Phoenix VORTAC and PAYSO intersection. Victor 95 is located approximately 3 NM east of the airport. This airway is similar to V528, however, this airway is used to navigate between the Phoenix VORTAC and the Winslow VORTAC. Victor 327-562-567, a north-south airway, crosses almost directly over Scottsdale Airport. The airway is used to navigate between the Phoenix VORTAC and the Flagstaff VORTAC. Victor 105-257, a north-south airway, is located approximately 4 NM west of the airport. This airway is used to navigate between the Phoenix VORTAC and the Drake VORTAC.

WILDERNESS AREAS

Scottsdale Airport is located within 20 NM of three wilderness areas: the Fort McDowell Bald Eagle Breeding Area, the Salt River Bald Eagle Breeding



LEGEND

AGL - Above Ground Level
FL - Flight Level in Hundreds of Feet
MSL - Mean Sea Level

NOT TO SCALE

Source: "Airspace Reclassification and Charting Changes for VFR Products," National Oceanic and Atmospheric Administration, National Ocean Service. Chart adapted by Coffman Associates from AOPA Pilot, January 1993.

NEW CLASSIFICATION	OLD CLASSIFICATION
CLASS A	Positive Control Area, Continental Control Area (part)
CLASS B	Terminal Control Area (TCA)
CLASS C	Airport Radar Service Area (ARSA)
CLASS D	Control Zone with Tower, Airport Traffic Area
CLASS E	Continental Control Area (part), Transition Areas, Control Zones without Tower
CLASS G	Uncontrolled Airspace



Area, and the Verde River Bald Eagle Breeding Area. The Fort McDowell Area is located approximately 7 NM east of the airport, the Verde River Area is located approximately 12 NM east-northeast, and the Salt River Bald Eagle Breeding Area is located approximately 13 NM east. The takeoff and landing of aircraft in wilderness areas are prohibited and aircraft are requested to maintain altitudes of at least 2,000 feet AGL from the highest elevation in the area.

VFR OPERATING PROCEDURES

VFR operations represent the majority of the air traffic operations at Scottsdale Airport. Under these conditions, the pilot is responsible for collision avoidance and will typically contact the tower approximately 10 miles from the airport for sequencing into the traffic pattern.

Aircraft operating VFR at Scottsdale Airport, generally use common visual reporting points in the area to identify their location to the tower personnel. Some of these points include Pinnacle Peak, Rawhide, Fountain Hills, Squaw Peak, and Camelback Mountain. Those aircraft that require a transition of the Class B Airspace must contact Phoenix TRACON prior to penetrating that airspace. The generalized VFR routes and visual reporting points in the Scottsdale Airport area are depicted on **Exhibit 1F, VFR Routes**.

The traffic pattern at Scottsdale Airport is located on the west side of the runway system. The published pattern

altitudes are 2,000 feet MSL for helicopters, 2,500 feet MSL for propeller aircraft, and 3,000 feet MSL for turbine powered aircraft.

IFR OPERATING PROCEDURES

There are three instrument approach procedures and two instrument departure procedures associated with Scottsdale Airport. The instrument approach procedures include the VOR-A (VOR Alpha), the VOR-C (VOR Charlie) and the NDB-B (NDB Bravo). The VOR-A approach provides nonprecision circling capabilities utilizing the Phoenix VORTAC as the primary navaid. This approach is available in weather conditions at or above 1,100 foot cloud ceiling and visibility of two and one-half miles. The VOR-C approach, based on the Willie VORTAC, also provides nonprecision circling capabilities, however, the cloud ceiling is 900 feet in visibility of two and one-half miles. The NDB-B approach provided from the Scottsdale NDB, allows for circling approaches in weather conditions at or above 700 foot cloud ceiling and visibility down to one mile.

Two departure procedures are provided at Scottsdale Airport: the Banyo Three and the Scottsdale Four Departures. The Banyo Three Departure is used by those aircraft generally departing to the north or the east, while the Scottsdale Four Departure is used by those aircraft departing to the west, south, or south-east. Any turboprop or turbojet IFR departure from Scottsdale Airport is assigned a specific SID, altitude, and departure route in order to sequence the

aircraft into the Phoenix Class B Airspace. The initial departure procedure is the same under both SIDs. Aircraft departing Runway 3 are assigned a left turn heading 260 degrees to the Phoenix R-336 radial to the Banyo Intersection (approximately 13 NM northwest). Generally the aircraft are assigned an altitude of 5,000 feet until Phoenix TRACON can acquire radar contact. Aircraft departing Runway 21 are assigned a right turn heading 300 degrees with the remaining information the same as a Runway 3 departure. Once these aircraft reach the Banyo Intersection, they will generally proceed on one of the several preferential departure routes out of the Phoenix area.

NOISE ABATEMENT PROCEDURES

Pilots using Scottsdale Airport are encouraged to avoid overflights of nearby residential areas whenever possible. Pattern traffic on each runway is encouraged to keep the patterns close-in to the airport when possible. Congested traffic patterns may cause the traffic patterns to be adjusted slightly for the required aircraft separation. Additional noise abatement procedures have been incorporated into the IFR departure routes with the left turns to either 260 degrees (Runway 3) or right turns to 300 degrees (Runway 21). In addition, the following noise abatement procedures are currently in effect.

- ◆ Runway 3 is designated the calm wind runway.

- ◆ Make right turn to 300 degrees as soon as possible when departing Runway 21, consistent with safety.
- ◆ No mid-field, stop-and-go, touch-and-go, formation, simulated single-engine departures or go-arounds on Runway 21.
- ◆ No touch-and-go, or stop-and-go operations between 9:30 P.M. and 6:00 A.M.
- ◆ Climb as high as possible before leaving airport boundaries, consistent with safety.
- ◆ No engine maintenance runups between 10:00 P.M. and 7:00 A.M., except in emergencies.
- ◆ Maintenance runups are to be conducted only in the designated engine runup area at the north end of Kilo ramp.
- ◆ Request that all aircraft not meeting F.A.R. Part 36, Stage III requirements takeoff on Runway 3 and land on Runway 21, weather and traffic permitting, consistent with safety.

SOCIOECONOMIC FACTORS

A variety of historical and forecast socioeconomic data, related to the Scottsdale Airport area was collected for use in various elements of the Master Plan. This information is essential in determining aviation service level requirements, as well as forecasting the

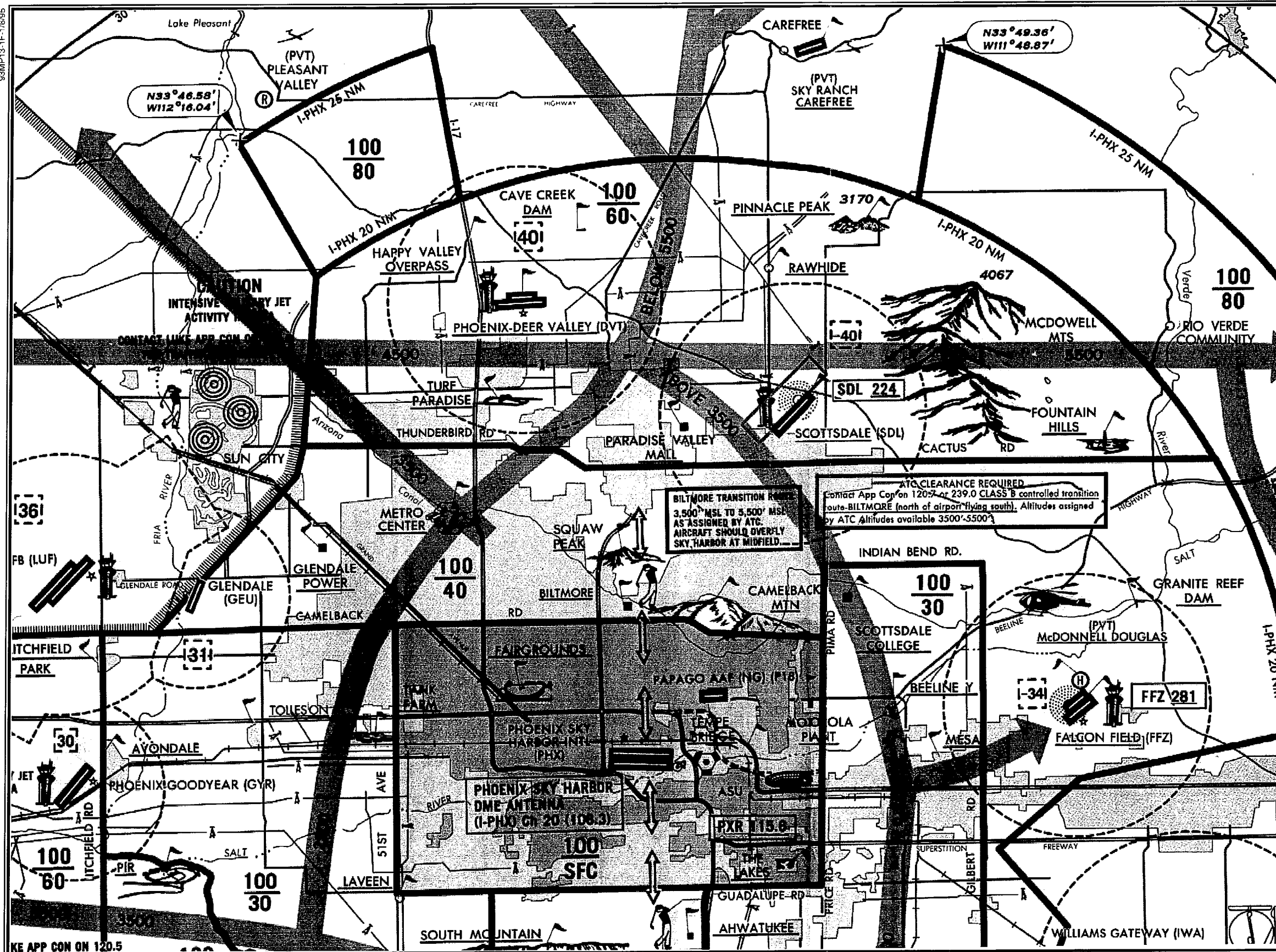


Exhibit 1F VFR FLIGHT ROUTES

LEGEND

- Suggested VFR Flyway and Altitude
- Typical VFR Traffic Pattern at Scottsdale
- Alert, Prohibited, Restricted and Warning Areas
- Class B Airspace
- Class D Airspace

Source: VFR Terminal Area Chart Phoenix Class B Airspace
U.S. Department of Commerce, National Oceanic and Atmospheric Administration



NOT TO SCALE



number of based aircraft and aircraft activity at the airport. Aviation forecasts are normally directly related to the population base, economic strength of the region, and the ability of the region to sustain a strong economic base over an extended period of time.

POPULATION

An analysis of population growth in the Scottsdale area was obtained from the

Arizona Department of Economic Security (DES) and the Maricopa Association of Governments (MAG). **Table 1D, Historical and Projected Population Statistics**, provides a population breakdown for Scottsdale, Phoenix, Maricopa County, and the State of Arizona. The historical data is based on the U.S. Census (1960-1990) and estimates by the State of Arizona and MAG. DES provided the projected population estimates.

TABLE 1D
Historical and Projected Population Statistics

Year	City of Scottsdale	City of Phoenix	Maricopa County	State of Arizona
HISTORICAL POPULATION				
1960	10,026	439,170	663,510	1,302,161
1970	67,823	584,303	971,228	1,775,399
1980	88,622	789,704	1,509,262	2,716,633
1990	132,452	1,000,580	2,130,400	3,665,228
1994	154,145	1,051,515	2,355,900	4,071,650
PROJECTED POPULATION				
2000	186,091	1,183,964	2,715,100	4,632,875
2005	212,154	1,278,349	3,031,350	5,132,725
2010	236,263	1,374,082	3,362,685	5,652,525
2015	256,838	1,487,238	3,724,105	6,212,000
Sources: Arizona Department of Economic Security, Research Administration, Population Statistics Unit, 1994. Maricopa Association of Governments, 1994.				

According to the table, the population of the City of Scottsdale is expected to grow by approximately 66.6 percent over the twenty-year planning period. The majority of this growth is likely to occur within the north half of the City,

beginning with the area north and east of the airport (Ironwood Village, DC Ranch, Gray Hawk, McDowell Mountain Ranch, and Desert Highlands planned developments, among others). The City of Phoenix is expected to grow

by 41.4 percent, a significant portion of which is expected within the area of Scottsdale Airport (Kierland, Paradise Ridge and Desert Ridge planned developments).

EMPLOYMENT

Table 1E, Scottsdale and Maricopa County Employment, provides a breakdown of the general employment sources in the area, by percentages. The most significant employment sectors in both the City of Scottsdale and Maricopa County are Services and Trade. Combined these two sectors account for almost 60 percent of Scottsdale's employment and 55 percent of the

County's. This typically indicates a tourism oriented economy with a predominance of hotels, restaurants and retail establishments. Medical care is another contributor to Service sector employment numbers and Scottsdale is home to the Mayo Clinic and other medical facilities.

The FIRE Sector, which includes employment related to finance, insurance and real estate, is another notable sector, accounting for 13 percent of Scottsdale and nine percent of County employment. Both the city and the county are also strong manufacturing centers, which accounts for 12 and 15 percent of local and regional employment, respectively.

TABLE 1E		
Scottsdale and Maricopa County Employment		
	Percent of Total	
Employment Sector	Scottsdale	Maricopa County
Agriculture/Mining	1.2	2.1
Construction	4.4	6.4
Manufacturing	12.2	15.1
TCPU ¹	7.0	7.8
Trade	23.1	22.0
FIRE ²	13.3	9.0
Services	36.3	33.1
Public Administration	2.5	4.5
Notes: ¹ Transportation, Communication and Public Utilities ² Finance, Insurance and Real Estate Source: 1990 Census of Population and Housing; Arizona Department of Economic Security, Research Administration, Population Statistics Unit.		

Based on projections made by the Maricopa Association of Governments (Update of the Population and Socioeconomic Database for Maricopa County, Arizona; March 1993), total employment in the City of Scottsdale is expected to double over the planning period to a total of 162,747 persons in 2015. County employment is expected to increase by almost 70 percent to a total of 1,691,143 persons in 2015.

The City of Scottsdale has designated the area around and north of Scottsdale Airport to be their new economic core, providing new business, retail and tourism opportunities. The Desert Ridge development is also expected to be developed as an economic core for northern Phoenix. This area is ex-

pected to be developed over the next ten to twenty years.

INCOME

Per capita income for Maricopa County has grown steadily over the past six years. Because it is the economic core for the State as a whole, Maricopa County's per capita income numbers were consistently higher than that of Arizona's for the six years studied. The County, however, maintained a slightly lower income average than that of the nation as a whole. **Table 1F, Per Capita Income**, compares the per capita income for Maricopa County, the State of Arizona and the United States.

TABLE 1F
Per Capita Income

Year	Maricopa County	State of Arizona	United States
1987	\$16,314	\$14,524	\$15,636
1988	\$16,936	\$15,061	\$16,610
1989	\$17,542	\$15,639	\$17,690
1990	\$18,253	\$16,262	\$18,667
1991	\$18,551	\$16,697	\$19,163
1992	\$19,367	\$17,401	\$20,105

Source: Arizona Department of Economic Security, Research Administration, 1994.

LAND USE PLANNING AND JURISDICTIONAL CONSIDERATIONS

An evaluation of existing land uses, zoning regulations and future planning in the vicinity of Scottsdale Airport aids

in determining the compatibility of the airport with its neighbors. This information will be used to develop an airport master plan which is compatible with local, regional and state long-range planning goals, objectives and policies; and to evaluate the strengths

and weaknesses of local regulatory control to ensure continuing compatibility of the surrounding area with the airport.

Scottsdale Airport is located within the corporate boundaries of Scottsdale Arizona. The City of Phoenix is located less than one mile west of the airfield, across and adjacent to Scottsdale Road. **Exhibit 1G, Existing Land Uses**, illustrates the jurisdictional boundaries of the two governments and the current land uses in the vicinity of Scottsdale Airport.

The exhibit illustrates a preponderance of commercial and industrial uses immediately around the airport. There are, however, a number of residential developments in the area, particularly west and south of the airfield. Additional commercial development is proposed west of the airport, within the Kierland Planned Development in Phoenix. A resort and the residential portions of this same development are located further to the west.

The area north of both Scottsdale Airport and the Central Arizona Project (CAP) Canal is proposed for both residential and commercial development. The City of Scottsdale intends this area to be the new economic and employment core of the City.

CLIMATE

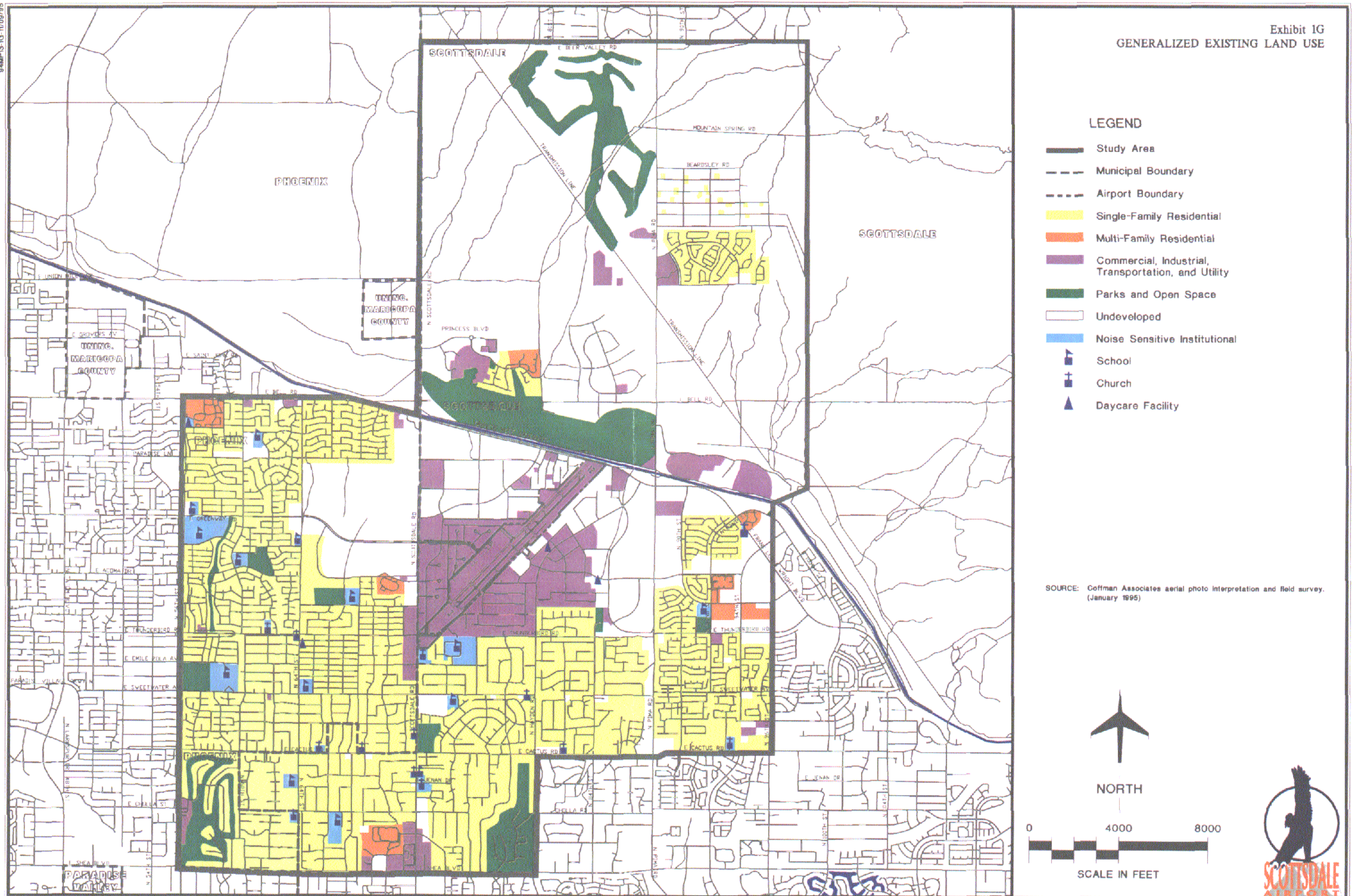
Weather conditions play a significant role in the planning and development of an airport. Temperature is an important factor in determining runway

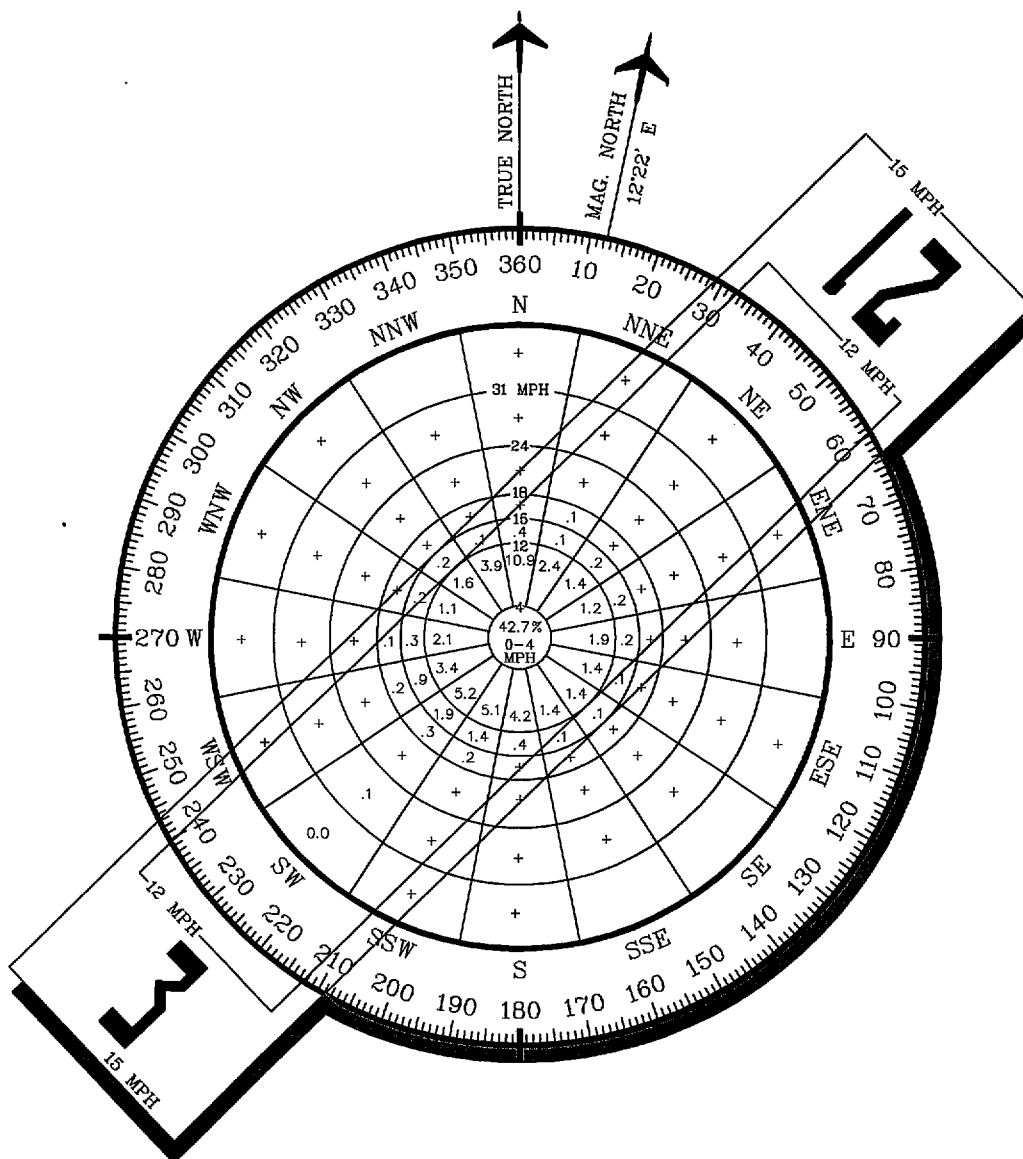
length, while wind direction and speed are used in determining runway orientation. The percentage of time that visibility is impaired due to cloud coverage or other conditions is a major factor in determining the need for additional navigational and lighting equipment.

The climate of Scottsdale is typical of the desert southwest, with summer temperatures averaging near 105 degrees and the mid-sixties during the mild winters months. Average annual rainfall is seven inches with most occurring during the "monsoon" season from July to August. Visibility is usually affected by blowing dust associated with the monsoon thunderstorms and occasional cloud cover associated with weather fronts moving through the area.

Winds are generally light and out of the north in the morning hours, shifting to the southwest in the afternoon and early evening hours, and generally calm during the evening hours. Thunderstorms passing through the area will occasionally have winds upwards of 50 miles per hour. These occurrences are normally for short periods of time, typically prior to the thunderstorm activity.

The overall weather characteristics in the Scottsdale Airport area provide for excellent flying opportunities year-around. **Table 1G, Weather Summary**, and **Exhibit 1H, Windrose**, provide a general tabulation of the weather characteristics in the area. The windrose was constructed from historical wind data recorded at Luke Air Force Base between 1969 and 1981. The information tabulated for Luke Air





SOURCE:

NOAA National Climatic Center
Asheville, N.C.

NOTE:

Wind information for Luke AFB
Glendale, Arizona

OBSERVATIONS:

84,000 Observations
1969-1981

WIND COVERAGE

	12 MPH	15 MPH
Runway 03-21	98%	99.3%



Force Base appears to be the most representative tabulated wind data available. During the previous master plan study, an analysis was conducted on

wind data collected by the Scottsdale ATCT staff, which confirmed the similarities with Luke Air Force Base.

**TABLE 1G
Weather Summary
Scottsdale, Arizona**

Month	Average Temperature (°F)		Average Total Precipitation (inches)
	Daily Maximum	Daily Minimum	
January	64.8	37.6	0.71
February	69.3	40.8	0.60
March	74.5	44.8	0.76
April	83.6	51.8	0.32
May	92.9	59.6	0.14
June	101.5	67.7	0.12
July	104.8	77.5	0.75
August	102.2	76.0	1.22
September	98.4	69.1	0.69
October	87.6	56.8	0.46
November	74.7	44.8	0.46
December	66.4	38.5	0.82
Year	85.1	55.4	7.05
Average Total Snow, Sleet and Hail Annually: Trace (based on a 30-year average)			
Source: Arizona Department of Commerce, Research and Communication Division; July 1991.			

SUMMARY

This chapter has examined those factors and issues that will have the greatest affect on the future development of Scottsdale Airport. The data collected provides the information necessary to

perform subsequent analyses. It also provides the proper perspective from which to develop a realistic master plan that will meet the needs of Scottsdale, the growing northeast metropolitan region and Maricopa County.